

**MILITARY INSTITUTE OF SCIENCE AND TECHNOLOGY**  
**(DEPARTMENT OF CIVIL ENGINEERING)**

LM

2376/27/CE

**GENERAL INSTRUCTIONS OF 'EXERCISE BHUMI JORIP' (SURVEY PRACTICAL) -2010**

References:

- A. Syllabus of CE-104 & CE-103.
- B. A Text Book of Surveying, by M Shahjahan & M A Aziz.
- C. Surveying Vol I, Vol II and Vol III, by Dr BC Punmia.

**General**

1. Surveying is the prerequisite for any engineering project. The first step for any project is to prepare sketches/maps, plan, section etc of the area to be covered. Depending upon the nature of the project these prepared sketches/maps and cross sections the tentative alignment, amount of earth work required and other necessary details can be estimated. Nobody can think of carrying out a project like railways, highways, tunneling, irrigation, dams, reservoirs, water works, sewerage works, air fields, ports, massive buildings etc without details of survey work. Even the measurements of land and the fixation of its boundaries can not be done without surveying. The economic or the engineering feasibility of a project cannot be properly judged without going through a minimum survey work.

2. '**EXERCISE BHUMI JORIP**' is an outdoor training on Practical Surveying (CE-104). The training will be conducted by Civil Engineering Department for the students of CE-12 in general area Mirpur Cantonment and Military Farm Savar, Savar Cantonment for a duration of 3 weeks commencing from 28 Nov 2010. Theory and practical work procedure will be followed as per References A, B and C.

**Aim**

3. The aim of this instruction is to apprise all concerned about the modus operandi and lay down responsibilities to be performed at various levels for the smooth conduct of the exercise.

**Objectives**

4. The objectives of this exercise are:
  - a. To orient the students with the use of various instruments of surveying and applying those in the field of survey.
  - b. To utilize the students' theoretical knowledge on survey into practical fields.
  - c. To train the students to lead in conducting any project survey.

**Conduct of Exercise**

5. **Timings**. Everyday program will commence at 0800 hrs in the morning. Reconnaissance, field work, preparation of final report etc will be conducted preferably during the office hrs from 0800 to 1430 hrs. Before the events commence, students will assemble in front of Tower Building 1 near Central Plaza (opposite of Administration Building) for the Quiz at 0745 hours with clip boards and writing materials. Drawing room will remain open from 1830 hrs to 2030 hrs. Event leader should be present during preparation of their report in the drawing room. Detail program is attached as Annex A.

6. **Training Area**. All events except **Route Survey, Leveling and Contouring** will be carried out within and at close proximity of Mirpur Cantonment area. **Route survey, Levelling and Contouring** will be conducted in Military Farm Savar, Savar Cantonment.

7. **Grouping and Appointments**. Students of CE-12 will be divided into 05 (five) groups. A group leader will be nominated for each group throughout the practical survey. Group leader will be mainly responsible for work management and administrative activities of

the group. But for each event, there will be an event leader for each group who will be responsible for conducting survey for that event of the group. Event leaders will be nominated by respective group in charge for particular event. There may be sub-groups from each group depending on events requirements. Students will carry out field works in the field by the group/sub-group members themselves. No extra personnel will be allowed for exercise purpose. Nominated instructors will guide/ help them in carrying out their works properly and correctly. Grouping of students including name of Group Leaders are shown in Annex-B.

8. **Appointments of the Exercise.** Exercise appointments are shown in the table below:

Appointment		Instructor in charge
Chief Supervisor		Brig Gen Gazi Ferooz Rahman
Coordinator		Col Shah Md Muniruzzaman, psc
Subject in charge/OIC		Maj Joarder Md Sarwar Mujib
Group in charges and Assistants to Group in charges	Group 1	Lt Col Zahidul Islam Ukil Lec Sarker Noor-E- Khoda, Senior Surveyor Yamin Badshsh Lab Asst Rehana Akhter
	Group 2	Maj Joarder Md Sarwar Mujib Lab Tech Abul Kalam Azad, Lab Asst Mousumi Evana Ferdous
	Group 3	Dr. Afzal Hossain Lec Kazi Ashfaq Hossain Lab Tech Abdullah Al Kabir Lab Asst Md Nizam Uddin
	Group 4	Lec Preetom Kishore Roy, Lab Tech Masud Rana Lab Asst Anwar Hossain
	Group 5	Lec Md Shamsuddoha Lec S.K. Belal Hossen Estimator Md Miraz Sarder Lab Asst Sarowar Alam
Administrative support and related coordination		Maj Iqbal Yusuf, GSO-2 (Trg), Dept of CE
Administrative NCO		No1437438 Sgt Md Abdul Majed
Survey Store in charge		Senior Surveyor Yamin Badshah
Clerical Support		Computer Op Md. Farid Hossain LDC Md Maniruzzaman

9. **Issue of Instrument.** The instrument for each event will be issued to each group as per program by the Survey Store in charge. Group leaders will be responsible to receive all stores. Group leader must ensure care and maintenance of the instruments issued to his group. The list of equipment is shown as Annex-C.

10. **Security of Instrument.** The responsibility of security of personnel and instrument are vested solely on all members of the group working in the field. Instruments required for subsequent days to be kept under personal supervision of the group leader, especially after the job of the day and overnight. **Do not leave any equipment or its parts unattended. For any loss or damage of any instrument, each individual in the group will be made responsible. Fines as decided by MIST authority will be recovered from all concerned in case of such incident.**

11. **Submission of Reports.** Reports/ prepared maps/ drawings etc of each event of field survey are to be submitted as shown in the detail program or direction of the instructor in charge. Type of task (group task/ individual task) will also be mentioned by the respective instructor in charge. No stationery will be given to the students. Prescribed survey formats of different events may be given to the students by the instructor in charge if necessary.

12. **Distribution of Marks.** Practical surveying will be graded out of total 100 marks. The distributions of the marks for different events of field survey are as follows:

Examination	Marks	Remarks
Quiz (for each event)	10%	Average of scored marks will be counted for final result
Field performance/ works / attendance	15%	
Final reports and assignments (for each event)	20%	
Observations	10%	
Final Quiz (covering all events)	25%	
Practical exam (covering all events) and viva	15%	
Observation by Coordinator/ OIC	3%	
Observation by Head, CE Dept/ Group in charge	2%	

13. **Discipline**. Students are to maintain high standard of discipline throughout the exercise in the field. Any breach of discipline will be viewed seriously. Students are expected to ensure their personal safety and to follow general traffic disciplines while on road. In this regard they are also instructed to avoid frequent crossing of main roads. Maintain proper timing for all events, which include morning presence, start of job, closing time for job of the day, deposition of task on time, etc. Active participation of all members, following correct field procedure as described in the reference books, following all verbal instructions of instructors in charge are also valuable contributor for proper discipline. **Make MIST different from others.**

### **Training Support Requirements**

14. **Provision of Vehicles**. Administrative Wing is requested to detail vehicles as follows:

a. **For all events in general area Mirpur Cantonment.**

- (1) 01xJeep,
- (2) 01xPick up,
- (3) 01xMicrobus/Coaster.

b. **For the events in Military Farm Savar Cantonment area.**

- (1) 01x Jeep.
- (2) 01x Pick up.
- (2) 02x Microbus/ Coaster.
- (3) 01x Bus.
- (4) 01x 3 Ton Lorry.

c. **Purposes.**

- (1) Movement of instructors and other personnel.
- (2) Carry the students from MIST campus to the field area and back.
- (3) Carry different stores/ equipment in the field and back.

15. **Control Point**. A control point is to be established in the field to meet up necessary training and administrative needs. Admin Wing is requested to establish a Control Point with outer fly of tents and necessary campstools/chairs, tables, boards etc on the ground in MIST as well as in Military Farm, Savar.

16. **Medical Cover**. Administrative Wing is requested to take necessary steps to provide medical cover during the out door exercise.

17. **Manpower Support**. Administrative Wing is requested to detail manpower as follows:

- a. 1xNCO and 5xLCpl/Snk as security personnel as well as for providing training support during the whole exercise duration.
- b. 05x NCEs along with 1xVan for carrying tea/ snacks/ packed lunch to the working spot of students and cleanliness of the ground.

18. **Food and Snacks.**

a. Students interested to take tea/snacks/ lunch may be arranged by the canteen/ officers' mess. Officers' mess is requested to provide necessary support to the students if necessary. Senior student will make necessary liaison with officers' mess /canteen in this regard and place demand well in advance.

b. **PMC/Mess Secretary.** Commandant, Dean and other senior officers of MIST are likely to visit the students during those events which will be conducted in Military Farm, Savar Cantonment area. PMC/Mess Secretary is requested to provide 02x mess waiters with necessary utensils/crockery for arrangement of tea/lunch during the visit of Commandant.

19. **Informing Local Authorities:** Administrative Wing is requested to inform local formation/ units / civil authorities of Mirpur Cantonment and all concerned regarding this exercise. Clearance has to be taken by the Administrative Wing since students (including civil male and female students) will use areas of different units/ residential areas for survey works.

**Coordination**

20. For any coordination / query, the OIC or Coordinator of the exercise may be contacted. Important mobile numbers are as follows:

- a. BA 2713 Col Shah Md Muniruzzaman, psc-01678034398
- b. BA 3288 Maj Joarder Md Sarwar Mujib- 01614105171
- c. BA- 4037 Maj Iqbal Yusuf, GSO-2(Trg), Dept of CE – 01714017487
- d. No 1437438 Sgt Md Abdul Majed, Trg NCO, Dept of CE-01678034446

**Conclusion**

21. The knowledge of surveying is advantageous in all phases of any engineering project beginning from the conceptualization. Through field work students will be exercised to apply their theoretical knowledge gained on surveying into practical ground. Hence, students are expected to gain confidence in instrument handling and have a clear concept on various events of survey. This will help them in project planning in future. Cooperation from all concerned are expected to make the exercise a success.

22. However, all concerned including the students should remember that the best surveyor is not he who is extremely accurate in all his works, but he who does it with enough accuracy to serve the purpose without waste of time or money. A surveyor should make the precision of each step in the field work corresponding to the importance of the steps.

**JOARDER MD SARWAR MUJIB**

Major

For Head, Department of Civil Engineering

Telephone: extension- 428

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Annexes:

- A. Detail Program.
- B. Grouping of Students.
- C. List of Equipments.

To:

Academic Wing

Administrative Wing

All Concerned of CE Department

All Group leaders of CE-10

Officers Mess

Information:

Headquarters, MIST

R&D Wing

Chairman, Examination Committee